

TABLE 13 (Cont.)

Case	Sex	Route ^a	Year of First Exposure	Year Diagnosed	Initial Systemic Intake ($\mu\text{Ci } ^{226}\text{Ra}$)	Skeletal Dose at Death ($\text{cGy } ^{226}\text{Ra}$)
<i>Unmeasured Cases</i>						
01-587	F	DP	1919	1943	-	-
03-675	F	DP	1922	1959	-	-
03-760	F	DP	1924	1946	-	-
03-772	F	DP	1922	1953	-	-
03-785	F	DP	1925	1953	-	-

^a Routes of exposure: DP, dial painter; RI, radium injection; RW, radium water.

Cuzik (1981) apparently deduced from Polednak et al. (1978) that fewer than 0.86 deaths from myeloma would be expected among all workers in radium dial plants (not more than 2,000 workers before 1929). Polednak et al. (1978) had stated that, among 634 female dial workers identified from employment lists or similar sources who were employed before 1930, no deaths occurred from causes identified as "lymphatic and myeloma" (ICD numbers 200-203), while the expected number was 0.81. Cuzik (1981) assumed that 35% of the deaths in this group (ICD numbers 200-203) would be myelomas; by a proportional extrapolation he determined the expected number of 0.86 deaths in a population of 2,000 women with 5 deaths observed. Thus, his observed number implies a statistically significant death rate for myeloma.

Stebbing et al. (1984) examined the methodology of Polednak et al. (1978) and concluded that Cuzik's expected value was in error because of an error in the code numbers used by Polednak et al. (1978). Stebbings et al. (1984) reported 6 deaths with multiple myelomas among female dial workers and calculated an expected number of 2.15, which is still a significant result ($p = 0.045$). However, one of these deaths was found to have been improperly certified as multiple myeloma when it was actually mycosis fungicides. If this discrepancy is taken into account, the observed number is not significant (5 observed, 2.15 expected, $p = 0.135$).